Stanton Lane 102 N 12th St. Erwin, NC 28339 22'x24'x12'



#### STRUCTURAL DESIGN RISK CATEGORY I/II ENCLOSED BUILDING

#### 30'- 0" MAXIMUM WIDE X 20'- 0" HEIGHT-BOX EAVE FRAME

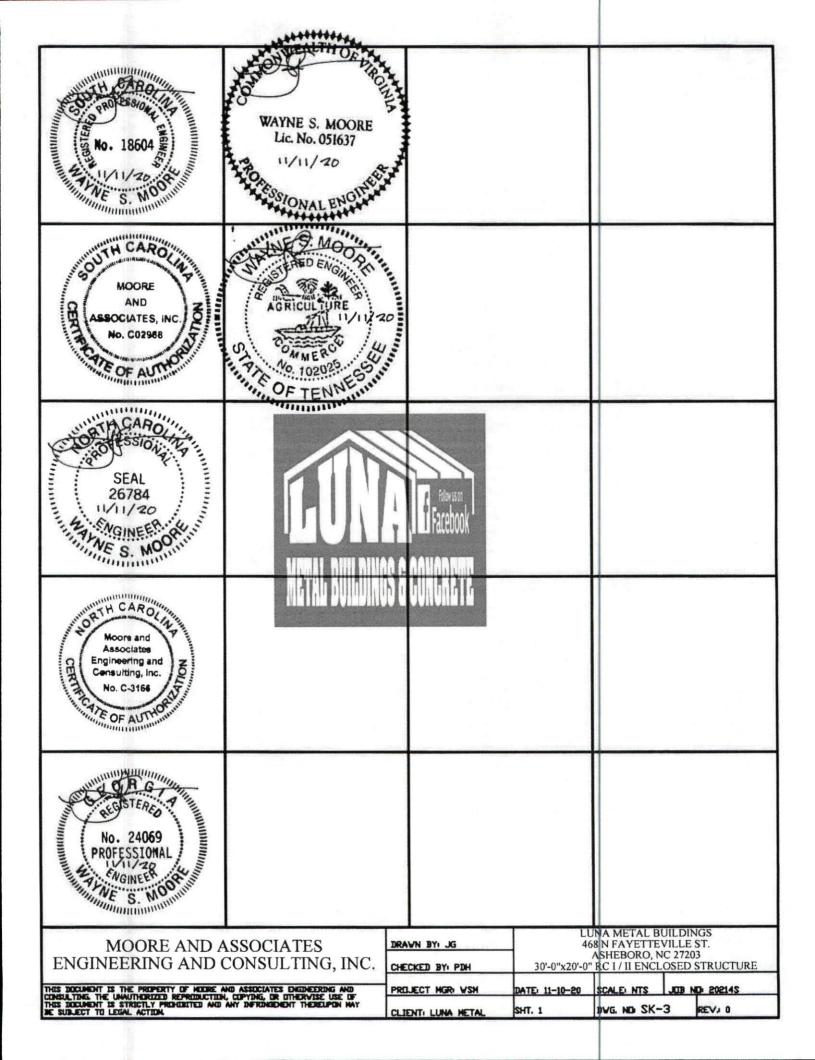
10 November 2020 Revision 0 M&A Project No. 20214S

#### Prepared for:



401 S. Main Street, Suite 200 Mount Airy, NC 27030





## DRAWING INDEX

SHEET 1 PE SEAL COVER SHEET SHEET 2 DRAWING INDEX SHEET 3 INSTALLATION NOTES AND SPECIFICATIONS SHEET 4 TYPICAL SIDE AND END ELEVATIONS SHEET 5 TYPICAL RAFTER/COLUMN END FRAMING AND SIDE FRAMING SECTIONS (EXPOSURE B) SHEET 5A TYPICAL RAFTER/COLUMN END AND SIDE FRAMING SECTIONS (EXPOSURE C) SHEET 5B TYPICAL RAFTER/COLUMN END AND SIDE FRAMING SECTIONS (EXPOSURE C) SHEET 6 COLUMN CONNECTION DETAILS (EXPOSURE B) SHEET 6A COLUMN CONNECTION DETAILS (EXPOSURE B) SHEET 6B COLUMN CONNECTION DETAILS (EXPOSURE C) SHEET 6C COLUMN CONNECTION DETAILS (EXPOSURE C) SHEET 7 BASE RAIL ANCHORAGE OPTIONS (EXPOSURE B) SHEET 7A BASE RAIL ANCHORAGE OPTIONS (EXPOSURE C) SHEET 8 BOX EAVE RAFTER END WALL OPENINGS SHEET 9 CONNECTION DETAILS SHEET 10 CONNECTION DETAILS SHEET 11 CONNECTION DETAILS SHEET 12 BOX EAVE RAFTER LEAN-TO OPTIONS SHEET 12A BOX EAVE RAFTER SHEET 13 BOX EAVE RAFT DPTION SHEET 13A BOX EAVE RAFTE OPTION SHEET 14 HEADER OPTIONS SHEET 14A HEADER OPTIONS

THIS DOCUMENT IS STRUCTLY PROMUNITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENT: LUNA METAL	SHT. 2	IVG. NO SK	-3	REV. 0	
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNMITHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF	PROJECT HGR: VSM	DATE: 11-10-20	SCALE NTS	JOB	NO 20214S	
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	30'-0"x20'-0	ASHEBORO, NC 27203 '-0"x20'-0" RC I / II ENCLOSED STRUCTUR			
MOORE AND ASSOCIATES	DRAWN BYI JG		UNA METAL BUILDINGS 168 N FAYETTEVILLE ST.			

#### INSTALLATION NOTES AND SPECIFICATIONS

- L DESIGN IS FOR MAXIMUM 30'-0' WIDE x 20'-0' EAVE HEIGHT ENCLOSED STRUCTURES.
- 2. DESIGN WAS DONE IN ACCORDANCE WITH THE 2018 NORTH CAROLINA BUILDING CODE, 2012 INTERNATIONAL BUILDING CODE (IBC), 2015 IBC. AND 2018 IBC
- 3 DESIGN LOADS ARE AS FOLLOWS:

A) DEAD LOAD

= 115 PSF FOR RISK CATEGORY II = 15 PSF FOR RISK CATEGORY I

- = 20 PSF FOR RISK CATEGORY II.
- B) LIVE LOAD
- = 12 PSF FOR RISK CATEGORY I.
- C) GROUND SNOW LOAD
- = 30 PSF WITH U-CHANNEL PEAK BRACE (W & 24-'0)
- = 35 PSF

(UNBALANCED SNOW LOADS DUE TO DRIFTING HAVE NOT BEEN EVALUATED).

- 4. 3-SECOND ULTIMATE WIND SPEED (V<sub>ULT</sub>) = ≤ 155 MPH (NOMINAL WIND SPEED = 120 MPH) FOR RISK CATEGORY II.
- 5. 3-SECOND ULTIMATE WIND SPEED (VULT) = ( 145 MPH (NOMINAL WIND SPEED = 112 MPH) FOR RISK CATEGORY I.
- 6 MAXIMUM RAFTER/POST AND END POST SPACING = 4.0 FEET FOR RISK CATEGORY II (UNLESS NOTED OTHERWISE)
- 7. MAXIMUM RAFTER/POST AND END POST SPACING = 5.0 FEET FOR RISK CATEGORY I (UNLESS NOTED OTHERWISE)

RUTEC

- 8. END WALL COLUMNS/POSTS ARE EQUIVALENT TO SIDE WALL COLUMNS/POSTS IN SIZE AND SPACING UNLESS NOTED OTHERVISE.
- 9 RISK CATEGORY I/II
- 10. WIND EXPOSURE CATEGORY B (RISK CATEGORY I)/C (RISK CATEGORY II)
- 11 SPECIFICATIONS APPLICABLE TO 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/4"x2 1/4"-14 GAUGE TUBE STEEL (TS) FRAMING MEMBERS (UNLESS NOTED OTHERWISE). WHERE TS 2 1/4" x 2 1/4" - 14 GAUGE IS SPECIFIED, TS 2 1/4" x 2 1/4" -12 GAUGE MAY BE USED AS AN OPTION
- 12. AVERAGE FASTENER SPACING ON-CENTERS ALONG RAFTERS OR HAT CHANNELS, AND COLUMNS (INTERIOR OR ENT) = 10° D.C. (MAX.) FOR RISK CATEGORY I AND 8° D.C. (MAX.) FOR RISK CATEGORY II. FOR WIND SPEEDS > 145 MPH = 6° D.C. (MAX.).
- 13. FASTENERS CONSIST OF #12-14x3/4" SELF-DRILLING FASTENER (SDF), USE CONTROL SEAL WASHER WITH EXTERIOR FASTENERS. SPECIFICATIONS APPLICABLE DNLY FOR MEAN ROOF HEIGHT OF 20 FEET OR LESS AND ROOF SLOPES OF 14\* (3:12 PITCH) OR LESS SPACING REQUIREMENTS FOR OTHER ROOF HEIGHTS AND/OR SLOPES MAY VARY ROOF SLOPES LESS THAN 3:12 REQUIRE USE OF LAP JOINT SEALANT.
- 14 GROUND ANCHORS SHALL BE INSTALLED THROUGH BASE

EACH RAFTER COLUMN ALONG SIDES NUT × 30° LONG AND ARE APPLICABLE ONLY IN MEDIUM TO THE OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS S AS NOTED COORDINATE WITH LOCAL CODES/ORDINANCES

STIFF (SUITABLE) SDILS, SDIL NAILS MAY BE AND MUST BE USED FOR WIND SPEEDS > 145 REGARDING MINIMUM LENGTH FOR FROST DEPI 16 WIND FORCES GOVERN OVER SEISMIC FORCES

15 STANDARD SOIL NAIL FOUNDATION SYSTEM

RISK CATEGORY I/II R= 3.25

IE= 10 V= CsW

202= 2039 g  $S_{D1} = 1.258 g$ 

SOIL SITE CLASS = D

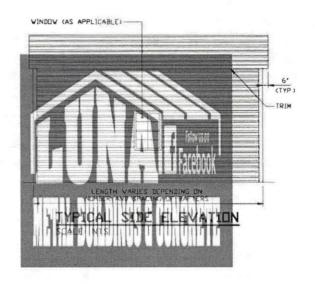
17. FOR RISK CATEGORY II STRUCTURES, MAXIM

STINNEL DOORS UTILIZED AS MEANS OF EGRESS

THIS DOCUMENT IS STRUCTLY PROPUBLIED AND ANY DIFFENGEMENT THEREUPIN MAY BE SUBJECT TO LEGAL ACTION.	CLIENT: LUNA METAL	sнт. з	ING. NO SK-	-3	REVJ 0	
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRIDUCTION, COPYING, OR OTHERWISE USE OF	PROJECT MGR: VSM	DATE: 11-10-20	SCALE: NTS	JOB	D 20214S	
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH		ASHEBORO, NC 27203 0'-0" RC I / II ENCLOSED STRUCTURE			
MOORE AND ASSOCIATES	DRAVN BY: JG LUNA METAL BUILDING				ST.	



## TYPICAL END ELEVATION SCALE: NTS



MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAVN BY: JG CHECKED BY: PDH	4	LUNA METAL BUILDINGS 468 N FAYETTEVILLE ST. ASHEBORO, NC 27203 30'-0"x20'-0" RC I / II ENCLOSED STRUCTURE			
THIS DOCUMENT IS THE PROPERTY OF HOOSE AND ASSOCIATES ENGINEERING AND	PROJECT MGR: VSM	DATE: 11-10-20	SCALE: NTS	JCTB	ND 202145	
DASILITING THE UNAUTHORIZED REPRIDUCTION, COPYING, OR OTHERVISE USE OF HOS DOCUMENT IS STRICTLY PROHOBITED AND ANY DIFRONGEMENT THEREUPON MAY E SUBJECT TO LEGAL ACTION.	CLIENT: LUNA METAL	SHT. 4	DVG. NO SK	-3	REVJ 0	

# 29 GA GALVANIZED METAL RODF AND VALL PANELS FASTENED TO RAFTERS AND POSTS. 1/2 × 2 1/2-14 GA TS RODF RAFTER 48'-18 GA U-CHANNEL BRACE FASTENED TO RAFTER VITH (2) BI2-14x3/4' SDF'S AT EACH END (4 PER BRACE) TS DOUBLE COLUMN (TYP) TS BASE RAIL (TYP) V S 24'-0' MAXIMUM RAFTER SPAN

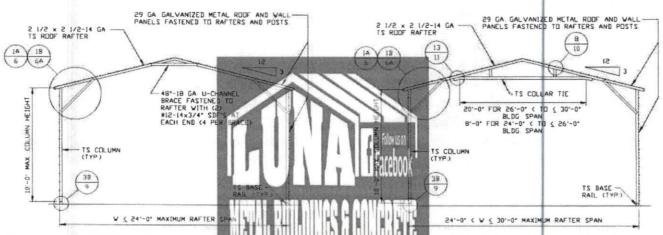
#### 29 GA GALVANIZED METAL ROOF AND WALL PANELS FASTENED TO RAFTERS AND POSTS. 2 1/2 x 2 1/2-14 GA TS ROOF RAFTER 10 13 (1 15 3 TS COLLAR TIE HE JGHT 20'-0" FDR 26'-0" ( TD ( 30'-0" BLDG SPAN B'-0" FDR 24'-0" ( TD ( 26'-0" BLDG SPAN COLUMN NMUJDO 3JBUDD 2T-MAX (3A) TS BASE -24'-0" ( W & 30'-0" MAXIMUM RAFTER SPAN

#### TYPICAL RAFTER/COLUMN END FRAME SECTION

E: NTS SCALE

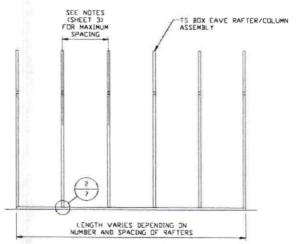
TYPICAL RAFTER/COLUMN END FRAME SECTION

TINA METAL DITTI DINGS



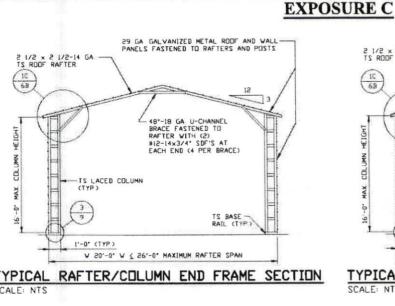
**EXPOSURE B** 

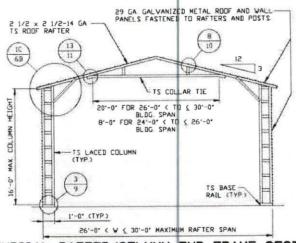
TYPICAL RAFTER/COLUMN END FRAME SECTION TYPICAL RAFTER/COLUMN END FRAMING SECTION



## TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION

THIS DOCUMENT IS STRUCTLY PROMUNITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENTI LUNA METAL	SHT. 5	IVG. NO SK-	-3	REVJ 0	
THIS DOCUMENT IS THE PROPERTY OF HOUSE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRIDUCTION, COPYING, OR OTHERWISE USE OF	PROJECT HGR: VSN	DATE: 11-10-20	SCALE: NTS	JOB	ND 20214S	
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	30'-0"x20'-0	ASHEBORO, NC 27203 30'-0"x20'-0" RC I / II ENCLOSED STRUCTUR			
MOORE AND ASSOCIATES	DRAVN BY: JG		468 N FAYETTEVILLE ST.			





#### RAFTER/COLUMN END FRAME SECTION

SCALE: NTS

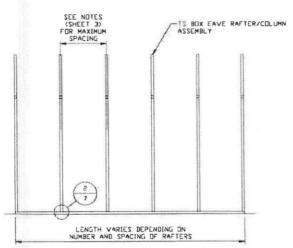
TYPICAL RAFTER/COLUMN END FRAME SECTION

29 GA GALVANIZED METAL ROOF AND WALL PANELS FASTENED TO RAFTERS AND POSTS. 29 GA GALVANIZED METAL ROOF AND VALL PANELS FASTENED TO RAFTERS AND POSTS. 2 1/2 x 2 1/2-14 GA TS ROOF RAFTER 2 1/2 x 2 1/2-14 GA -TS ROOF RAFTER 68 11 -48'-18 GA U-CHA BRACE FASTENED RAFTER WITH (2) #12-14x3/4' SDE' EACH END (4 PER TS COLLAR TIE HE1GHT 20'-0' FDR 26'-0' < 10 \ 30'-0' BLDG SPAN 8'-0' FDR 24'-0' < 10 \ 26'-0' BLDG SPAN CDLUMN TS DOUBLE COLUMN TS DOUBLE COLUMN MAX 34 9 26'-0' ( W & 30'-0' MAXINUM RAFTER SPAN W 20'-0' W € 26'-0' MAXIMUM RA

SCALE: NTS

TYPICAL RAFTER/COLUMN END

RAFTER/COLUMN END FRAMING SECTION

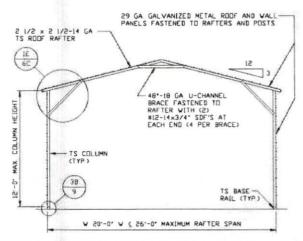


#### TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION

SCALE: NTS

MOORE AND ASSOCIATES	DRAVN BY: JG		468 N FAYETTEVILLE ST. ASHEBORO, NC 27203			
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	30'-0"x20'-0	20'-0" RC I / II ENCLOSED STRUCTU			
THIS DOCUMENT IS THE PROPERTY OF HOUSE AND ASSOCIATES ENGINEERING AND	PROJECT MGR: VSM	DATE: 11-10-20	SCALE: NTS	JUB	NO: 202145	
CONSULTING THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THOS DOCUMENT IS STRUCTLY PROMOBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENTI LUNA METAL	SHT. 58	DVG. NO SK	-3	REVA 0	

#### **EXPOSURE C**



## TYPICAL RAFTER/COLUMN END FRAME SECTION SCALE: NTS

29 GA GALVANIZED METAL ROOF AND WALL
PANELS FASTENED TO RAFTERS AND POSTS

TS ROOF RAFTER

13
11
20'-0' FOR 26'-0' < TO \( \frac{1}{2} \) 30'-0'

BLOG SPAN

8'-0' FOR 24'-0' < TO \( \frac{2}{2} \) 26'-0'

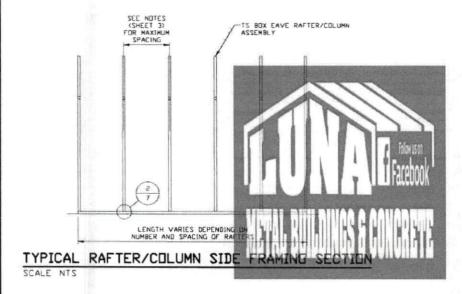
TS COLUMN

(TYP)

15 BASE
RAIL (TYP)

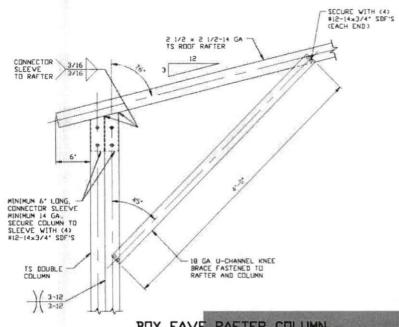
26'-0' < V \( \frac{1}{2} \) 30'-0' MAXIMUM RAFTER SPAN

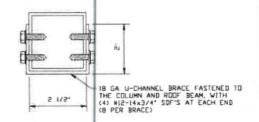
TYPICAL RAFTER/COLUMN END FRAME SECTION



ENGINEERING AND CONSULTING, INC.			1	LOSED STRUCTURE
THIS DOCUMENT IS THE PROPERTY OF HOUSE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHOBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJUCT TO LEGAL ACTION.	PROJECT HGR: VSH	DATE: 11-10-20 SHT. 5A	DVG, ND SK-	-3 REV. 0

# EXPOSURE B COLUMN CONNECTION DETAILS





BRACE SECTION

BOX EAVE RAFTER COLUMN
CONNECTION DETAIL FOR
HEIGHTS 10'-0 TO SCALE: NTS

CONNECTOR 3/16
SCALE: NTS

CONNECTOR 3/16
SCALE: NTS

SECURE WITH 64
SECURE COLUMN TO SLEEVE
VITH (4) BI2-14×3/4' SDF'S

TS COLUMN

IB GA. U-CHANNEL KNEE
BRACE FASTENED TO
RAFTER AND COLUMN

BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 8'-0' < TO \( \lambda \) 10'-0'

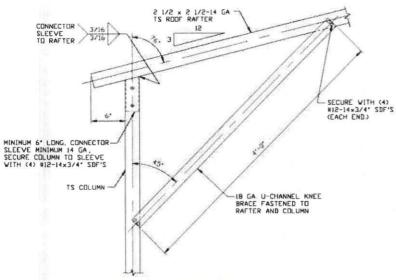
SCALE: NTS NOTE: SINGLE COLUMN HEIGHT UP TO 12'-0' FOR MAXIMUM 115 MPH WIND SPEED.

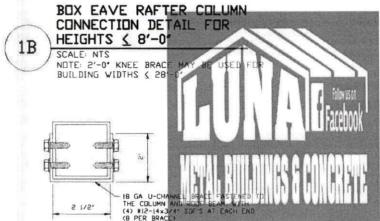
MOORE AND ASSOCIA	
ENGINEERING AND CONSUL	LTING, INC.

THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING THE UNAUTHORIZED REPRODUCTION, COPYING, OR DITHERYISE USE OF THIS DOCUMENT IS STRICTLY PROMIBITED AND ANY INFRINGMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

DRAWN BY: JG CHECKED BY: PDH	LUNA METAL BUILDINGS 468 N FAYETTEVILLE ST. ASHEBORO, NC 27203 30'-0"x20'-0" RC 1 / II ENCLOSED STRUCTI			
PROJECT NGR VSM	DATE: 11-10-20	SCALE: NTS	JOB	ND: 20214S
CLIENTI LINA METAL	SHT. 6	ING. NO SK	-3	REVJ 0

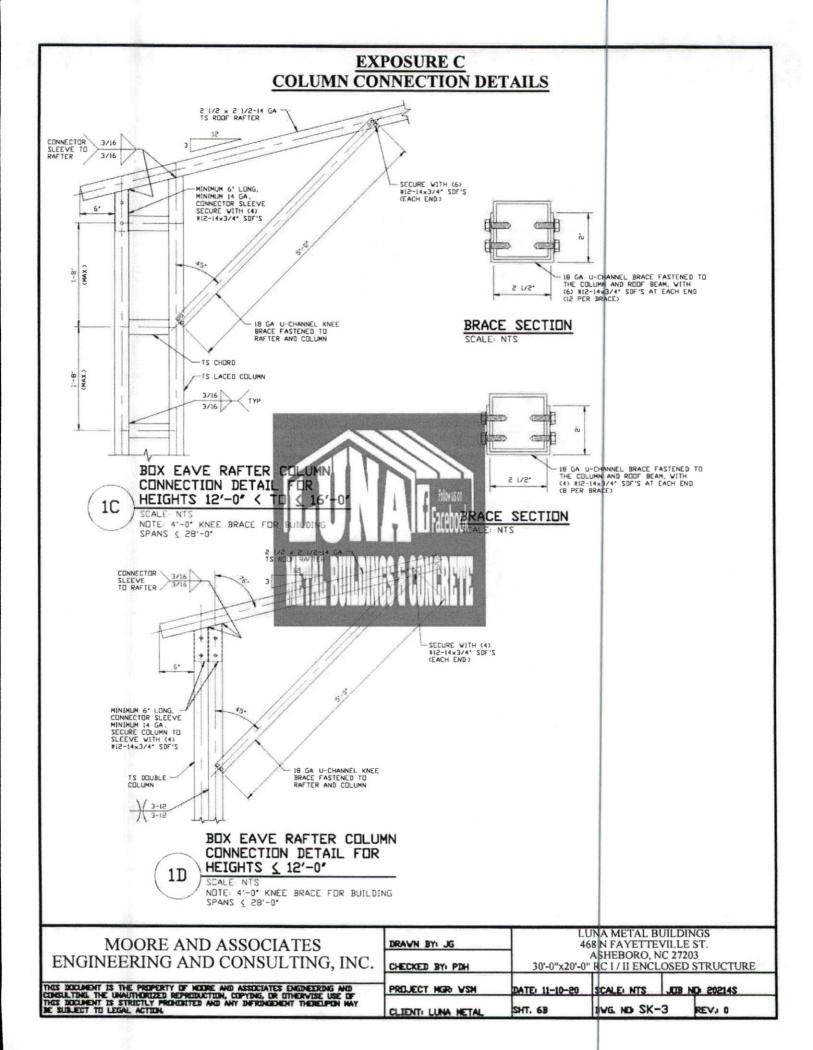
# COLUMN CONNECTION DETAILS



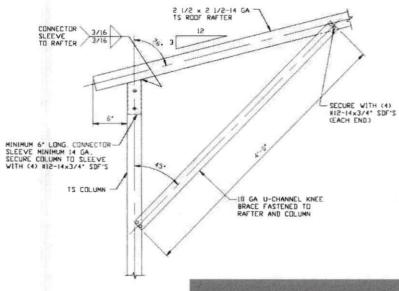


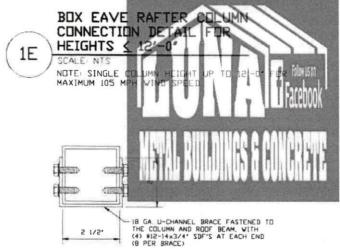
BRACE SECTION
SCALE: NTS

CONSULTING THE UNAUTHORIZED REPRODUCTION, COPYDIG, OR OTHERVISE USE OF THIS DOCUMENT IS STRUCTLY PROMINETED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENT: LUNA HETAL	SHT. 6A	IVG. NO SK	-3	REV. 0			
THIS DOCUMENT IS THE PROPERTY OF MOURE AND ASSOCIATES ENGINEERING AND	PROJECT MGR: VSM	DATE: 11-10-20	SCALE: NTS	JOB	20214S			
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	30'-0"x20'-0	ASHEBORO, NC 27203 RC I / II ENCLOSED STRUCTURE					
MOORE AND ASSOCIATES	OCIATES DRAVN BY JG 468 N FAYE				. BUILDINGS TEVILLE ST.			



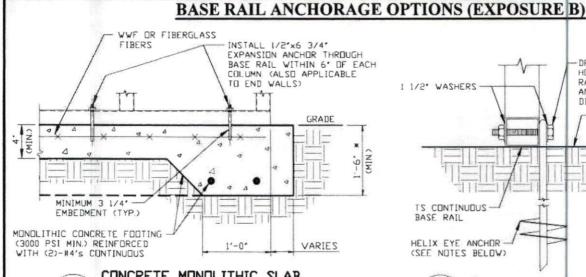
# COLUMN CONNECTION DETAILS





BRACE SECTION

THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY DIFRINGEMENT THERELIPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENTI LUNA HETAL	SHT. 6C	DVG. NO SK-	-3 REV. 0		
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF	PROJECT MGR: VSM	DATE: 11-10-20	SCALE: NTS	JUB NO 202145		
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	30'-0"x20'-0	LOSED STRUCTURE			
MOORE AND ASSOCIATES	DRAWN BY: JG		LUNA METAL BUILDINGS 468 N FAYETTEVILLE ST. ASHEBORO, NC 27203			



CONCRETE MONOLITHIC SLAB BASE RAIL ANCHURAGE SCALE: NTS
NDTE: MIN. ANCHOR EDGE DISTANCE IS 4'
\* CODRDINATE WITH LOCAL BUILDING CODE ORD
REGARDING REQUIRED FROST DEPTH (LENGTH)

-DRILL 5/8' DIAMETER HOLE THROUGH THE BASE RAIL AND SECURE TO ANCHOR EYE WITH 1/2' DIAMETER THROUGH BOLT TOP OF ASPHALT PAVEMENT OR GROUND SURFACE TS CONTINUOUS HELIX EYE ANCHOR (SEE NOTES BELOW)

2B

GROUND BASE HELIX ANCHORAGE SCALE: NTS (CAN BE USED FOR ASPHALT)
\* COORDINATE WITH LOCAL CODES/ORD
REGARDING MIN FROST DEPTH (LENGTH).

#### **GENERAL NOTES**

NOTE: CONCRETE MONDLITHIC SLAB DESIGN BASED ON MINIMUM. BEARING CAPACITY OF 1,500 PSF

#### CONCRETE

CONCRETE SHALL HAVE A MINIMUM SPECIFIED STRENGTH OF 3,000 PSI AT 28 DAYS.

# COVER OVER REINFORCING STEEL FOR FOUNDATIONS, MINIMUM CONCRETE COVER DV

BARS SHALL BE PER ACT-318:
3' IN FOUNDATIONS WHERE THE CONCRETE
PERMANENTLY IN CONTACT WITH THE EARTH
EARTH OR WEATHER, AND 1 1/2' ELSEWHERE

#### REINFORCING STEEL

THE TURNDOWN REINFORCING STEEL SHALL BE AS 60 THE SLAB REINFORCEMENT SHALL BE WELDED MEETING ASTM A185 OR FIBERGLASS FIBER REINFO



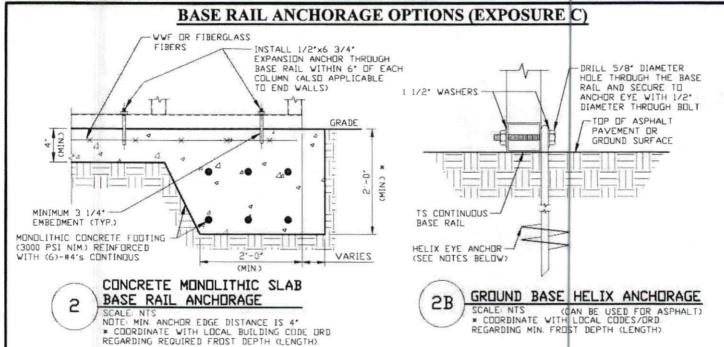
#### REINFORCEMENT MAY BE BENT IN THE SHOP OR THE FIELD PROVIDED

- REINFORCEMENT IS BENT COLD
  THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE
  BAR, IS NOT LESS THAN SIX-BAR DIAMETERS
  REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT

#### HELIX ANCHOR NOTES

- 1 FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELOADED SILTS AND CLAYS, USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6' HELIX WITH MINIMUM 50' EMBEDMENT
- 2 FOR CORAL USE MINIMUM (2) 4' HELICES WITH MINIMUM 30' EMBEDMENT OR SINGLE 6' HELIX WITH MINIMUM 50' EMBEDMENT.
- 3 FOR MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS, AND CLAYS USE MINIMUM (2) 4' HELICES WITH MINIMUM 30 INCH EMBEDMENT OR SINGLE 6' HELIX WITH MINIMUM 50" EMBEDMENT.
- 4 FOR LODGE TO MEDIUM DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS ALLUVIAL FILL, USE MINIMUM (2) 6' HELICES WITH MINIMUM 50' EMBEDMENT
- 5 FOR VERY LOSE TO MEDIUM DENSE SANDS, FIRM TO STIFFER CLAYS AND SILTS, ALLUVIAL FILL, USE MINIMUM (2) 8' HELICES WITH MINIMUM 60' EMBEDMENT

THIS DOCUMENT IS STRICTLY PROMUNITED AND ANY DIFFINGEMENT THEREUPON MAY ME SUBJECT TO LEGAL ACTION	CLIENT: LUNA HETAL	SHT. 7	IWG. NO SK-	-3	REVJ 0	
THIS DOCUMENT IS THE PROPERTY OF NOORE AND ASSOCIATES ENGINEERING AND CONSULTING THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERVISE USE OF	PROJECT HGR: VSM	DATE) 11-10-20	SCALE: NTS	Jone	ND 20214S	
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	30'-0"x20'-0	ASHEBORO, NC 27203 " FC I / II ENCLOSED STRUCTURE			
MOORE AND ASSOCIATES	DRAWN BYI JG					



#### GENERAL NOTES

NOTE: CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM BEARING CAPACITY OF 1,500 PSF.

#### CONCRETE

CONCRETE SHALL HAVE A MINIMUM SPECIFIE STRENGTH OF 3,000 PSI AT 28 DAYS.

#### COVER OVER REINFORCING STEEL

FOR FOUNDATIONS, MINIMUM CONCRETE COVER BARS SHALL BE PER ACI-318: 3' IN FOUNDATIONS WHERE THE CONCRETE PERMANENTLY IN CONTACT WITH THE EARTH EARTH OR WEATHER, AND 1 1/2' ELSEWHER!

#### REINFORCING STEEL

THE TURNDOWN REINFORCING STEEL SHALL BE A 60. THE SLAB REINFORCEMENT SHALL BE WELDED MEETING ASTM ALBS OR FIBERGLASS FIBER REIN

#### REINFORCEMENT MAY BE BENT IN THE SHOP OR THE FIELD PROVIDED

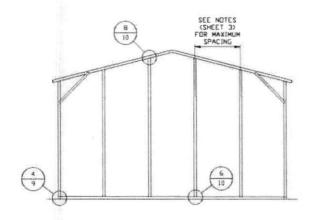
- REINFORCEMENT IS BENT COLD.
  THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE BAR, IS NOT LESS THAN SIX-BAR DIAMETERS.
  REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT
- BE FIELD BENT

#### HELIX ANCHOR NOTES:

- I FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELOADED SILTS AND CLAYS, USE MINIMUM (2) 4' HELICES WITH MINIMUM 30' EMBEDMENT OR SINGLE 6' HELIX WITH MINIMUM 50' EMBEDMENT
- FOR CORAL USE MINIMUM (2) 4' HELICES WITH MINIMUM 30' EMBEDMENT OR SINGLE 6' HELIX WITH MINIMUM 50' EMBEDMENT
- 3 FOR MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS, AND CLAYS USE MINIMUM (2) 4° HELICES WITH MINIMUM 30 INCH EMBEDMENT OR SINGLE 6° HELIX WITH MINIMUM 50' EMBEDMENT
- FOR LODSE TO MEDIUM DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS ALLUVIAL FILL, USE MINIMUM (2) 6' HELICES WITH MINIMUM 50' EMBEDMENT
- 5 FOR VERY LOSE TO MEDIUM DENSE SANDS, FIRM TO STIFFER CLAYS AND SILTS, ALLUVIAL FILL, USE MINIMUM (2) 8' HELICES WITH MINIMUM 60' EMBEDMENT.

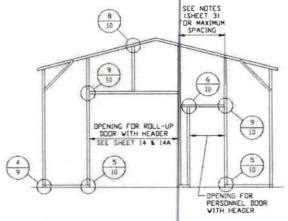
MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: JG CHECKED BY: PDH	┥ ⁴	LUNA METAL BUILDINGS 468 N FAYETTEVILLE ST. ASHEBORO, NC 27203 30'-0"x20'-0" RC 1 / II ENCLOSED STRUCTUR			
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF	PROJECT HGR: VSH	DATE: 11-10-20	SCALE: NTS	JOB	O 20214S	
THIS DOCUMENT IS STRUCTLY PROHIBITED AND ANY INFROMMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION	CLIENT: LUNA METAL	SHT. 7A	TWG. NO SK	-3	REVJ 0	

#### BOX EAVE RAFTER END WALL AND END WALL OPENINGS



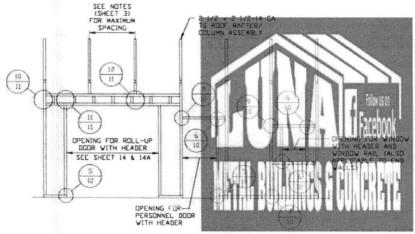
## TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION

SCALE: NTS



TYPICAL BOX EAVE RAFTER END WALL OPENINGS FRAMING SECTION

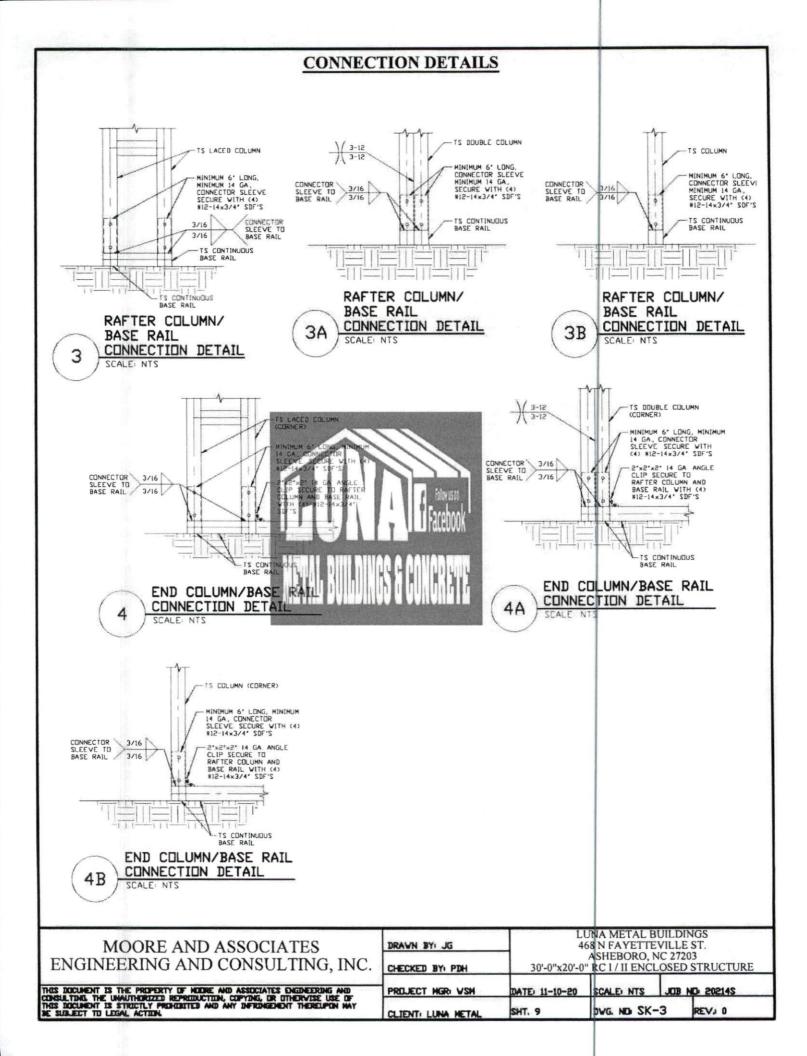
SCALE: NTS

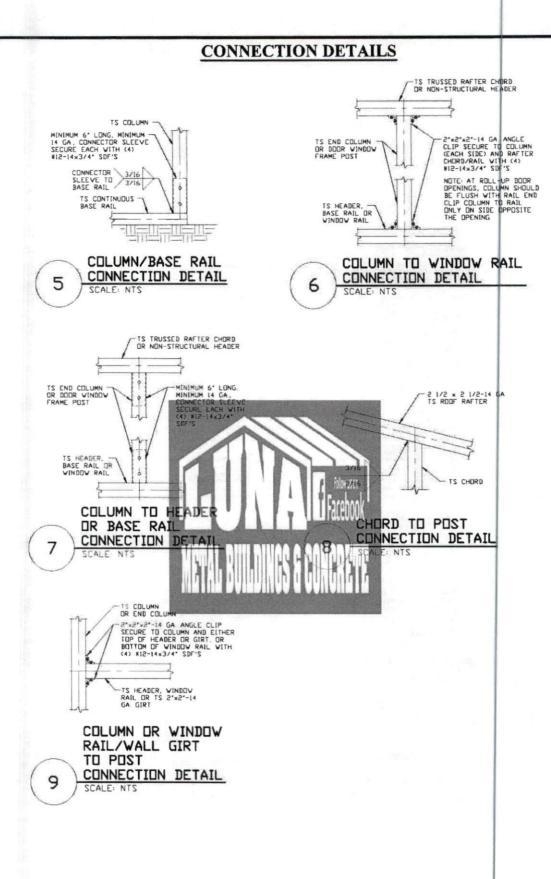


TYPICAL BOX EAVE RAFTER SIDE WALL OPENINGS FRAMING SECTION

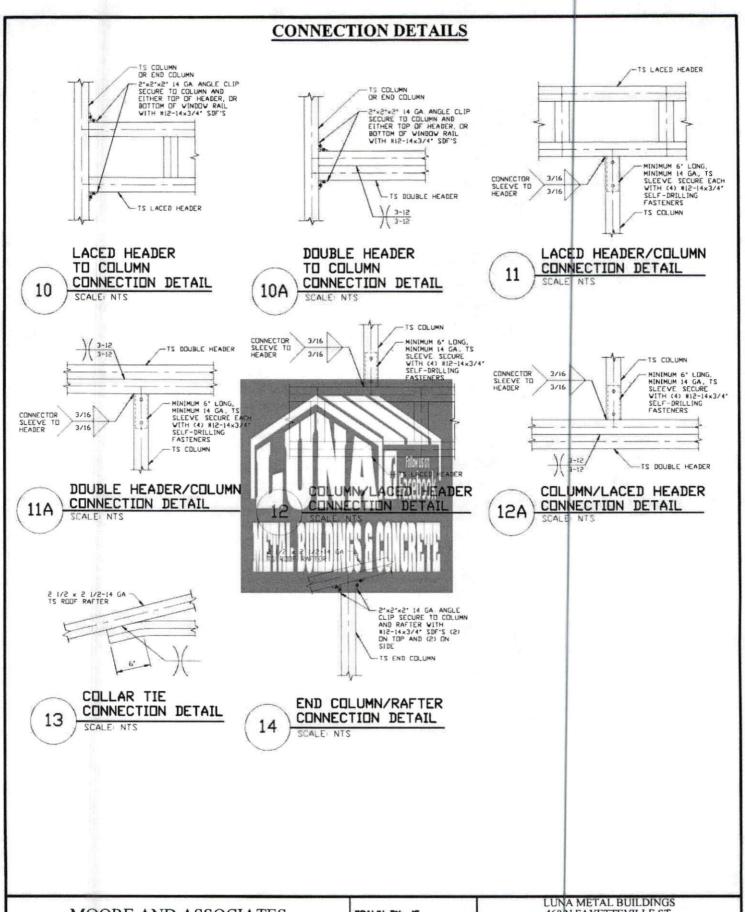
SCALE: NTS

ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	30'-0"x20'-0	ASHEBORO, " RC I / II ENC			_
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING THE UNAUTHORIZED REPRODUCTION, COPYDING, OR OTHERWISE USE OF	PROJECT HGR: VSH	DATE: 11-10-20	SCALE: NTS	JOB	ND 202145	
THIS DOCUMENT IS STRUCTLY PROHIBITED AND ANY DIFTENGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENTI LUNA NETAL	SHT, B	DVG. NO SK	-3	REV. 0	



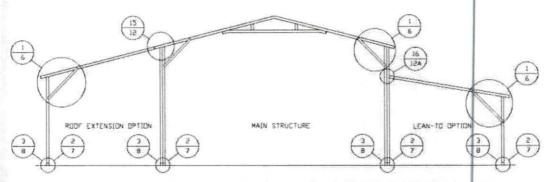


MOORE AND ASSOCIATES	DRAVN BYI JG		UNA METAL E 68 N FAYETTE	EVILLE ST.	
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	ASHEBORO, NC 27203 30'-0"x20'-0" RC 1 / II ENCLOSED STRUCTUI			
THIS EXCLUMENT IS THE PROPERTY OF MODIFIE AND ASSOCIATES ENGINEERING AND CONSULTING THE UNAUTHORIZED REPRODUCTION, COPYING OR OTHERWISE USE OF	PROJECT HOR: VSH	DATE: 11-10-20	SCALE: NTS	JUB NO 20214S	
THIS DOCUMENT IS STRICTLY PRINCIPLED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENTI LUNA HETAL	SHT. 10	DAG NO SK-	-3 REV. 0	



MOORE AND ASSOCIATES	DRAVN BY: JG	4	468 N FAYETTEVILLE ST. ASHEBORO, NC 27203 30'-0"x20'-0" RC 1 / II ENCLOSED STRUCTUR				
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	30'-0"x20'-0					
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND	PROJECT MGR: VSM	DATE: 11-10-20	SCALE: NTS	JOB N	ND 20214S		
CONSULTING THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERVISE USE OF THIS DOCUMENT IS STRUCTLY PROMINITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENT: LUNA NETAL	SHT. 11	IVG. NO SK	-3	REVJ 0		

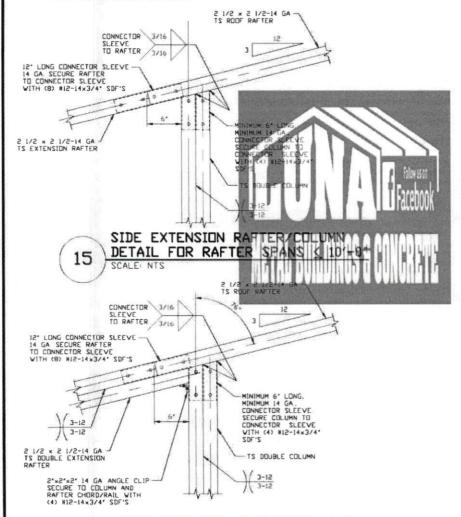
#### BOX EAVE RAFTER LEAN-TO OPTIONS



#### TYPICAL BOX EAVE RAFTER LEAN-TO OPTIONS FRAMING SECTION (BOTH OPTIONS SHOWN)

SCALE: NTS

FOR SHARED COLUMNS REFERENCE RAFTER COLUMN CONNECTION DETAILS FOR APPROPRIATE COLUMN HEIGHT AND TUBING SPECIFICATIONS.



SIDE EXTENSION RAFTER/COLUMN
DETAIL FOR RAFTER SPANS

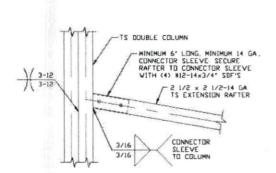
15A SCALE: NTS

MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC

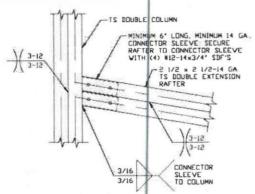
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES EMBMEDRING CONSULTING. THE UMAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE US THIS DOCUMENT IS STRUCTLY PROMOBILED AND ANY DIFFRINGOMENT THEREUPO	AND
COMMENTAL THE INVESTMENT DEPROPRIETING CONTRACT OF STREET, SEE IN	F 195
CONSULTED THE UNIOTHERESE REPRESENTATION CONTINUE, OR DIRECTOR OF	- 1
THIS DISCURENT IS STRUCTLY PREMIMITED AND ANY DERINGERENT THEREUP	N MAT
BE SUBJECT TO LEGAL ACTION.	

	DRAWN BYI JG	4	468N FAYETTEVILLE ST. ASHEBORO, NC 27203					
•	CHECKED BY: PDH	30'-0"x20'-0	RC I / II ENC	LOSED	STRUCTURE			
_	PROJECT MGR: VSM	DATE: 11-10-20	SCALE: NTS	JOB	ND 20214S			
	CLIENT: LUNA HETAL	SHT. 12	DVG. NO SK	-3	REVJ 0			

#### **BOX EAVE RAFTER LEAN-TO OPTIONS**



LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS ≤ 10'-0" 16



LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS 10'-0' < T□ \ 14'-0'

16A



COLUMN CONNECTION DETAIL FOR RAFTER SPANS 107-07 16B

2"x2"x2" 14 GA ANGLE CLIP SECURE TO COLUMN AND RAFTER CHORD/RAIL WITH (4) NIZ-Ux3/4" SDF'S -2 I/2 x 2 1/2-14 GA TS DOUBLE EXTENSION RAFTER TS DOUBLE

LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS 10'-0' < T□ < 12'-0'

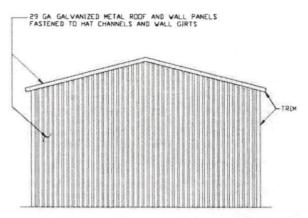
SCALE: NTS

	MOORE AND ASSOCIATES	
ENC	SINEERING AND CONSULTING, IN	C.

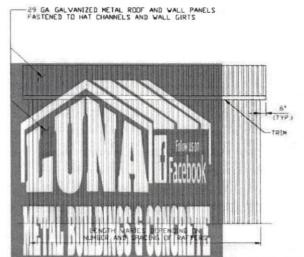
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND COMMULTING. THE UNAUTHORIZED REPRODUCTION, COPYDING, OR OTHERWISE USE OF THIS DOCUMENT IS STREETLY PROHOBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

DRAWN BY: JG		68 N FAYETTE ASHEBORO.	EVILLE	E ST.	
CHECKED BY: PDH	30'-0"x20'-0	" RC I / II ENC	LOSEI	STRUCTURE	
PROJECT MGR: VSM	DATE: 11-10-20	SCALE: NTS	JOB	NO 20214S	
CLIENT: LUNA METAL	SHT. 12A	DVG. NO SK	-3	REVA 0	

#### BOX EAVE RAFTER VERTICAL ROOF/SIDING OPTION



# TYPICAL END ELEVATION VERTICAL ROOF/SIDING SCALE: NTS



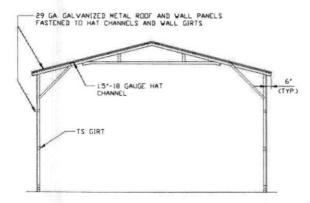
TYPICAL SIDE ELEVATION VERTICAL ROOF/SIDING

MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.

THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNWAITHORIZED REPRODUCTION, COPYING, OR OTHERVISE USE OF THIS DOCUMENT IS STRICTLY PROPERTIED AND ANY DIFRONGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

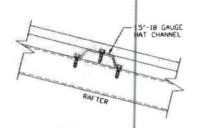
oger	CLIENT: LUNA HETAL	SHT. 13	DVG. NO SK	-3	REVJ 0	
	PROJECT HGR: VSH	DATE: 11-10-20	SCALE: NTS	JUB	NO 20214S	
	CHECKED BY: PDH				STRUCTURE	
	DRAWN BY: JG	46	NA METAL E 8 N FAYETTE ASHEBORO, 1	VILLE	ST.	

#### BOX EAVE RAFTER VERTICAL ROOF/SIDING



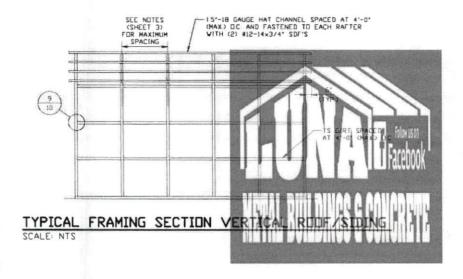
TYPICAL SECTION VERTICAL ROOF/SIDING

SCALE: NTS



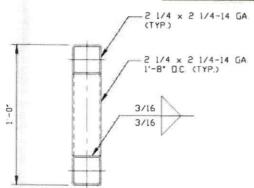
PANEL ATTACHMENT

(ALTERNATE FOR VERTICAL ROOF PANELS)
SCALE: NTS

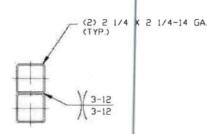


THIS DOCUMENT IS STRICTLY PROFIDENTED AND ANY DIFFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENT: LUNA METAL	SHT. 13A	DVG. NO SK-	3	REV. 0	
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF	PROJECT MGR: VSM	DATE: 11-10-20	SCALE: NTS	JEE N	D 20214S	
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	1	ASHEBORO, NC 27203 '-0" RC I / II ENCLOSED STRUCTUR			
MOORE AND ASSOCIATES	DRAWN BY: JG	46	8 N FAYETTE	ST.		

# EXPOSURE B SIDE WALL HEADER OPTIONS

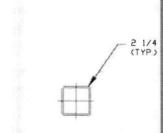


HEADER DETAIL FOR SPANS 10'-0' < TO < 14'-0'



HEADER DETAIL FOR SPANS ≤ 10'-0'

### END WALL HEADER OPTIONS

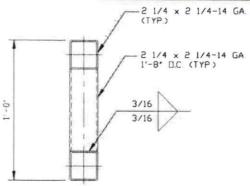


HEADER DETAIL FOR SPANS & 14'-0'

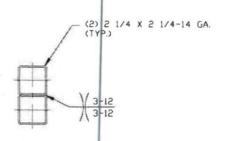


MOORE AND ASSOCIATES	DRAVN BYI JG	1	UNA METAL E 168 N FAYETTE ASHEBORO.	EVILLE ST.	
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	30'-0"x20'-0	30'-0"x20'-0" RC 1 / II ENCLOSED STRUCT		
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR DTHERWISE USE OF	PROJECT MGR: VSM	DATE: 11-10-20	SCALE: NTS	JOB NO 20214S	
THIS DOCUMENT IS STRUCTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	CLIENTI LINA METAL	SHT, 14	DVG. NO SK	-3 REV. 0	

#### **EXPOSURE C** SIDE WALL HEADER OPTIONS



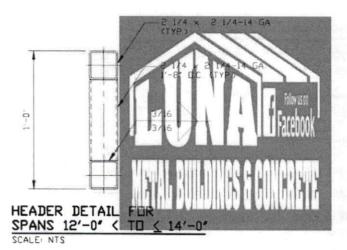
HEADER DETAIL FOR SPANS 8'-0" < T□ < 14'-0"



HEADER DETAIL FOR SPANS **≤** 8'-01

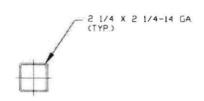
SCALE: NTS

#### END WALL HEADER OPTIONS



(2) 2 1/4 X 2 1/4-14 GA (TYP.) 3-12 / 3-12

HEADER DETAIL FOR SPANS 7'-0' < T□ ≤ 12'-0'



HEADER DETAIL FOR SPANS < 7'-0"

SCALE: NTS

THIS DOCUMENT IS STRUCTLY PROHIBITED AND ANY DEFRINGEMENT THEREUPON MAY BE SUBJECT TO LOGAL ACTION.	CLIENT: LUNA HETAL	SHT. 14A	DVG. NO SK-	-3	REVJ 0	
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNMUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF	PROJECT MGR: VSM	DATE: 11-10-20	SCALE: NTS	JUB	ND 20214S	
ENGINEERING AND CONSULTING, INC.	CHECKED BY: PDH	30'-0"x20'-0"			STRUCTURE	
MOORE AND ASSOCIATES	DRAVN BY: JG		LUNA METAL BUILDINGS 468 N FAYETTEVILLE ST. ASHEBORO. NC 27203			